Screen Printing at GEM Ltd
Overview

- Facilities
- Screen Design
- Examples
- Applications
Screen Printing Facilities

- Research / Production
- Handprinting (DEK 65)
- Semi-automatic (DEK 1202, 245)
- Production (DEK 248)
- Class 1000 clean room
- Drying and UV cure ovens
Screen Design

• AutoCAD system for artwork generation
• Rapid prototyping
• Facilitates communication
Examples simple 2 electrode
Examples simple 3 electrode
Examples complex sensor
Examples array
Examples array
Applications I

- Materials testing (internal)
- Biosensors
- Food
- Environment
- Medical
Applications II

- Biomedical/ Pharmaceutical
- ECG monitoring
- High Throughput Screening
- DNA sequencing
- Sensors
- Gas
- Automotive
Summary

• Printing capability for ~1million sensors a month
• Integration of materials development with sensor design and production
• Rapid Development
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